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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/775,154

02/11/2004

George Olaru

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05/22/2006

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CANADA

EXAMINER

EWALD, MARIA VERONICA

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/775,154

Applicant(s)

OLARU, GEORGE

Examiner

Maria Veronica D. Ewald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/04&amp;10/05</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

13. Claims 16 – 17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 10, 2006.

### *Claim Rejections - 35 USC § 112*

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 recites the limitation "...of a nozzle head of *said nozzle*..." There is insufficient antecedent basis for this limitation in the claim, since there is no prior reference to a *nozzle* previous to claim 10; prior reference is indicated as a *nozzle member* or *nozzle melt channel*. Appropriate correction and/or clarification is required.

### *Claim Rejections - 35 USC § 102*

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 4, 6 – 10, 13 – 15, 18 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Gellert (U.S. 5,049,062). Gellert teaches an injection molding apparatus comprising: a manifold member having a manifold melt channel for delivering a melt stream of moldable material through an outlet thereof (item 12 – figure 1); a nozzle member having a nozzle melt channel for delivering the melt stream to a mold cavity (item 10 – figure 1); a seal located at an interface between the manifold member and the nozzle member, the seal having a seal melt channel communicating at a first end with the manifold melt channel and at a second end with the nozzle melt channel for receiving the melt stream from the manifold melt channel and delivering the melt stream to the nozzle melt channel (item 90 – figure 2; column 3, lines 20 – 30); and a biasing element to maintain a continuous sealing pressure between the manifold and nozzle members independent of injection pressure (item 106 – figures 1 and 2; column 3, lines 20 – 35); wherein the seal and biasing elements are separately formed (items 90 and 106 – figures 1 and 2; column 3, lines 20 – 35); wherein the seal and biasing elements are integrally connected (figures 1 and 2; column 3, lines 30 – 35); and wherein the seal is telescopically connected to the nozzle member (column 3, lines 25 – 30).

With respect to claims 6 – 10, the reference further teaches that the bias element includes a spring element (item 106 – figure 1); wherein the spring element is preloaded to apply the sealing pressure at a start-up temperature of the apparatus (column 3, lines 50 – 55, 59 – 65); wherein the seal is movable relative to one of the manifold member

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and the nozzle member (column 3, lines 30 – 35); wherein the seal includes a tubular wall extending from a cylindrical ring, said tubular wall being at least partly received in said nozzle melt channel (item 112 – figures 1 and 2; column 3, lines 38 – 45); wherein said biasing element (item 106 – figure 1) is located between an upper surface of a nozzle head (item 36 – figure 1) of said nozzle and said cylindrical ring of said seal (item 112 – figure 1).

With respect to claims 13 – 15, Gellert also teaches an injection molding apparatus comprising: a manifold having a manifold melt channel for receiving a melt stream of moldable material (item 12 – figure 1); a nozzle having a nozzle melt channel (item 10 – figure 1); a seal having a seal melt channel located between the nozzle melt channel and the manifold melt channel for delivering melt from said manifold melt channel to said nozzle melt channel (item 90 – figure 1); and a biasing element (item 106 – figures 1 and 2) that provides sealing contact between said seal and said manifold and said nozzle to maintain a sealed melt path between said manifold melt channel and said nozzle melt channel (column 3, lines 30 – 35, 39 – 47); wherein said seal is slidable relative to said manifold and said nozzle (column 3, lines 20 – 30); wherein said seal telescopes within said nozzle melt channel (column 3, lines 25 – 30).

With respect to claims 18 – 19, Gellert further teaches an injection molding apparatus comprising: a manifold having a manifold melt channel for receiving a melt stream of moldable material (item 12 – figure 1); a nozzle having a nozzle melt channel (item 10 – figure 1); a seal having a seal melt channel located between the nozzle melt channel and the manifold melt channel (items 90, 92 – figure 2; column 3, lines 20 –

25); and a biasing element that provides sealing contact between said seal and said manifold, wherein the biasing element is located outside the seal melt channel (item 106 – figure 1; column 3, lines 35 – 40). Gellert further teaches an injection molding apparatus comprising: a manifold having a manifold melt channel for receiving a melt stream of moldable material (item 12 – figure 1); a nozzle having a nozzle melt channel (item 10 – figure 1) and a nozzle head portion (item 34 – figure 1); a seal having a seal melt channel located between the nozzle melt channel and the manifold melt channel (item 90, 92 – figure 1; column 3, lines 20 – 23); and a biasing element (item 106 – figure 1) that makes a first contact with the nozzle head portion and a second contact with the seal to provide a sealing force between the nozzle seal and the manifold (column 3, lines 25 – 30, 32 – 40, 44 – 47).

Claims 1 – 15 and 18 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Schad (U.S. 4,682,945). Schad teaches an injection molding apparatus comprising: a manifold member having a manifold melt channel for delivering a melt stream of moldable material through an outlet thereof (item 38 – figure 3); a nozzle member having a nozzle melt channel for delivering the melt stream to a mold cavity (item 37 – figure 3); a seal located at an interface between the manifold member and the nozzle member, the seal having a seal melt channel communicating at a first end with the manifold melt channel and at a second end with the nozzle melt channel for receiving the melt stream from the manifold melt channel and delivering the melt stream to the nozzle melt channel (item 32 – figure 3); and a biasing element to maintain a

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continuous sealing pressure between the manifold and nozzle members independent of injection pressure (column 3, lines 8 – 15); wherein the seal and biasing elements are separately formed (figure 3; column 3, lines 1 – 5) ; wherein the seal and biasing elements are integrally connected (figure 3, column 3, lines 1 – 5); and wherein the seal is telescopically connected to the nozzle member (column 2, lines 50 – 55; column 3, lines 1 – 5).

With respect to claims 5 – 10, Schad further teaches that the apparatus includes first and second biasing elements cooperating for biasing the seal against the other of the manifold and nozzle members (items 54 and 55 – figure 3; column 3, lines 1 – 5), the first and second biasing elements having different pressure response characteristics (column 3, lines 10 – 16); wherein the bias element includes a spring element (column 3, lines 10 – 13); wherein the spring element is preloaded to apply the sealing pressure at a start-up temperature of the apparatus (column 3, lines 10 – 15); wherein the seal is movable relative to one of the manifold member and the nozzle member (column 3, lines 10 – 15); wherein the seal includes a tubular wall (item 55 – figure 3) extending from a cylindrical ring (item 54 – figure 3), said tubular wall being at least partly received in the nozzle melt channel (item 34 – figure 3) and wherein said biasing element is located between an upper surface of a nozzle head of said nozzle and said cylindrical ring of said seal (figure 3).

With respect to claims 11 – 12, the reference further teaches that the seal has a non-flat upper surface (item 55 – figure 2); and wherein the manifold member further

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comprises a manifold seal insert that has a non-flat surface that engages the non-flat upper surface of the seal (item 54 – figure 2).

With respect to claims 13 – 15, Schad also teaches an injection molding apparatus comprising: a manifold having a manifold melt channel for receiving a melt stream of moldable material (item 38 – figures 2 and 3); a nozzle having a nozzle melt channel (item 58 – figure 2); a seal having a seal melt channel located between the nozzle melt channel and the manifold melt channel for delivering melt from said manifold melt channel to said nozzle melt channel (item 32 – figure 2); and a biasing element (items 54 and 55 – figures 2 and 3) that provides sealing contact between said seal and said manifold and said nozzle to maintain a sealed melt path between said manifold melt channel and said nozzle melt channel (column 2, lines 44 – 50); wherein said seal is slidable relative to said manifold and said nozzle (column 2, lines 50 – 55); wherein said seal telescopes within said nozzle melt channel (column 2, lines 50 – 55).

With respect to claims 18 – 19, Schad further teaches an injection molding apparatus comprising: a manifold having a manifold melt channel for receiving a melt stream of moldable material (item 38 – figures 2 and 3); a nozzle having a nozzle melt channel (item 58 – figure 2); a seal having a seal melt channel located between the nozzle melt channel and the manifold melt channel (item 32 – figure 2; column 2, lines 44 – 48); and a biasing element that provides sealing contact between said seal and said manifold, wherein the biasing element is located outside the seal melt channel (items 54 and 55 – figures 2 and 3; column 3, lines 1 – 5, 10 – 15). Gellert further teaches an injection molding apparatus comprising: a manifold having a manifold melt



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channel for receiving a melt stream of moldable material (item 38 – figures 2 and 3); a nozzle having a nozzle melt channel and a nozzle head portion (item 58 – figure 2); a seal having a seal melt channel located between the nozzle melt channel and the manifold melt channel (item 32 – figure 2); and a biasing element (items 54 and 55 – figures 2 and 3) that makes a first contact with the nozzle head portion and a second contact with the seal to provide a sealing force between the nozzle seal and the manifold (column 1, lines 59 – 65; column 2, lines 44 – 46; column 3, lines 10 – 15).

#### ***Reference(s) of Interest***

16. Steil, et al. (U.S. 6,368,542) are cited of interest to show the state of the art.

#### ***Conclusion***

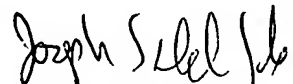
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVE

  
JOSEPH S. DEL SOLE  
PRIMARY EXAMINER  
5/18/06